AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. – 288. (Cancelled)

289. (Previously Presented) An optical device comprising:

a substrate having first and second oppositely facing generally parallel planar surfaces;

at least one optical fiber, having a core, mounted on said substrate along said first generally parallel planar surface, said substrate and said at least one optical fiber being cut by a common transverse notch having at least one inclined surface extending entirely through said core of said at least one optical fiber, said first generally parallel planar surface and partially through said substrate, and defining at least one of end of said at least one optical fiber at said at least one inclined surface; and

at least one optical element adhesively mounted at least partially within said notch, said at least one optical element including at least one reflective optical surface facing an end of said at least one optical fiber lying at one of said at least one inclined surface and also facing said second parallel planar surface of said substrate.

290. (Previously Presented) An optical device according to claim 289 and also comprising electrical circuitry.

291. (Previously Presented) An optical device according to claim 289 and wherein said core of said at least one optical fiber is in optical communication with said at least one reflective optical surface.

292. (Previously Presented) An optical device according to claim 289 and also comprising electrical circuit formed on said second surface.

293. (Previously Presented) An optical device according to claim 289 and wherein said substrate is optically transmissive, permitting optical signal communication therethrough between said first and second surfaces.

294. (Previously Presented) An optical device according to claim 289 and wherein said at least one inclined surface is a rough surface.

295. (Previously Presented) An optical device according to claim 294 and also comprising an optical adhesive disposed between said rough surface and said at least one optical element, which fills in interstices of said rough surface.

296. (Previously Presented) An optical device according to claim 295 and wherein said optical adhesive has an index of refraction at least generally matched to that of said core of said at least one optical fiber and to that of said at least one optical element.

297. (Previously Presented) An optical device according to claim 289 and wherein said at least one reflective optical surface is a flat reflective surface.

298. (Previously Presented) An optical device according to claim 289 and wherein said at least one optical element includes a concave mirror.

299. (Previously Presented) An optical device according to claim 289 and wherein said at least one optical element includes a partially flat and partially concave mirror.

300. (Previously Presented) An optical device according to claim 299 and wherein said partially concave mirror includes a mirror having multiple concave reflective surfaces.

301. (Previously Presented) An optical device according to claim 289 and wherein said at least one optical element includes a reflective grating.

302. (Previously Presented) An optical device according to claim 289 and wherein said at least one optical element includes reflective elements formed on opposite surfaces of an optical substrate.

303. (Previously Presented) An optical device according to claim 289 and wherein said at least one optical element is operative to focus light received from said at least one optical fiber.

304. (Previously Presented) An optical device according to claim 289 and wherein said at least one optical element is operative to collimate light received from said at least one optical fiber.

305. (Previously Presented) An optical device according to claim 289 and wherein said at least one optical element is operative to focus at least one of multiple colors of light received from said at least one optical fiber.

306. (Previously Presented) An optical device according to claim 289 and also including an optical connector on an edge of said optical device.

307. (Previously Presented) An optical device according to claim 306 and wherein said optical connector is aligned with at least one end of said at least one optical fiber along said edge of said optical device and also including electrical circuitry and an array of electrical connections coupled to sale electrical circuitry.

308. (Previously Presented) An optical device according to claim 306 and wherein said optical connector also comprises alignment bores arranged on said edge of said optical device.

309. (Previously Presented) An optical device according to claim 289 and wherein said substrate is optically non-transmissive not permitting optical signal communication therethrough between said first and second surfaces and also comprising at least one optical via extending though said substrate between said first and second surfaces in optical communication with said at least one reflective optical surface.

310. (Previously Presented) An optical device according to claim 289 and also comprising at least one laser mounted on said substrate and at least one optical detector arranged to sense light emitted by said at least one laser.

311. (Previously Presented) A optical device according to claim 309 and also comprising at least one laser mounted on said substrate and at least one optical detector arranged to sense light emitted by said at least one laser.

312. (New) An optical device, comprising:

a substrate having first and second generally parallel planar surfaces;

at least one optical fiber, having a core, mounted on said substrate and being cut by a transverse notch having at least one inclined surface extending entirely through said core of said at least one optical fiber and defining at least one of end of at least one optical waveguide at said at least one inclined surface; and

at least one optical element adhesively mounted at least partially within said notch, said at least one optical element including at least one reflective optical surface facing an end of said at least one optical fiber lying at one of said at least one inclined surface;

wherein said substrate is optically non-transmissive not permitting optical signal communication therethrough between said first and second surfaces and also comprising at least one optical via extending though said substrate between said first and second surfaces in optical communication with said at least one reflective optical surface.

313. (New) An optical device, comprising:

a substrate having first and second generally parallel planar surfaces;

at least one optical fiber, having a core, mounted on said substrate and being cut by a transverse notch having at least one inclined surface extending entirely through said core of said at least one optical fiber and defining at least one of end of at least one optical waveguide at said at least one inclined surface;

at least one optical element adhesively mounted at least partially within said notch, said at least one optical element including at least one reflective optical surface facing an end of said at least one optical fiber lying at one of said at least one inclined surface; and

at least one laser mounted on said substrate and at least one optical detector arranged to sense light emitted by said at least one laser;

wherein said substrate is optically non-transmissive not permitting optical signal communication therethrough between said first and second surfaces and also comprising at least one optical via extending though said substrate between said first and second surfaces in optical communication with said at least one reflective optical surface.